

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A wireless apparatus comprising:
a mixer to convert a frequency of a received signal;
an analog filter to filter the received signal whose frequency has been converted by said mixer;
an analog-to-digital converter to convert the received analog signal filtered by said analog filter into a digital signal;
a digital filter having a band limiting characteristic which is inverse to that of said analog filter with respect to an ideal filter, to filter the digital signal into which the received signal has been converted by said analog-to-digital converter; and
a digital filter control unit to disable the filtering of the digital signal by said digital filter when determining directly from non-linearity of a power level or directly from non-linearity of an amplitude level of the received signal that the filtering by said digital filter will increase distortion of the received signal, the determining occurring before the filtering of the digital signal by said digital filter.

Claim 2 (Previously Presented): The wireless apparatus according to Claim 1, wherein said digital filter control unit includes
a receive level detector to detect the receive level of the received signal,
a threshold storage unit to store a receive level threshold which said digital filter control unit uses when disabling the filtering of the digital signal by the digital filter, and
a level comparison unit to enable or disable the filtering of the digital signal by said digital filter according to a comparison between the receive level detected by said receive level detector and the receive level threshold stored in said threshold storage unit.

Claim 3 (Previously Presented): The wireless apparatus according to Claim 2, wherein said threshold storage unit stores, as the receive level threshold which said digital filter control unit uses when disabling the filtering of the digital signal by said digital filter, a linear receive level high limit of the received signal which is influenced by an analog unit including the mixer, the analog filter, and the analog-to-digital converter.

Claim 4 (Previously Presented): The wireless apparatus according to Claim 2, wherein said threshold storage unit stores, as the receive level threshold which said digital filter control unit uses when disabling the filtering of the digital signal by said digital filter, a linear receive level low limit of the received signal which is influenced by an analog unit including the mixer, the analog filter, and the analog-to-digital converter.

Claim 5 (Previously Presented): The wireless apparatus according to Claim 2, wherein said threshold storage unit stores, as the receive level threshold which said digital filter control unit uses when disabling the filtering of the digital signal by said digital filter, a linear receive level high limit and a linear receive level low limit of the received signal which is influenced by an analog unit including the mixer, the analog filter, and the analog-to-digital converter.

Claim 6 (Previously Presented): The wireless apparatus according to Claim 1, wherein said digital filter includes
an output selecting unit to select and output the received signal which has been filtered by said digital filter or the received signal which has not been filtered by said digital

filter according to enabling or disabling control of the filtering of the digital signal by said digital filter control unit.

Claim 7 (Currently Amended): A wireless method comprising:

converting, in a mixer, a frequency of a received signal;

filtering, in an analog filter, the received signal whose frequency has been converted by said mixer;

converting, in an analog-to-digital converter, the received analog signal filtered by said analog filter into a digital signal;

filtering, in a digital filter having a band limiting characteristic which is inverse to that of said analog filter with respect to an ideal filter, the digital signal into which the received signal has been converted by said analog-to-digital converter; and

disabling, in a digital filter control unit, the filtering of the digital signal by said digital filter when determining directly from non-linearity of a power level or directly from non-linearity of an amplitude level of the received signal that the filtering by said digital filter will increase distortion of the received signal, the determining occurring before the filtering of the digital signal by said digital filter.

Claim 8 (Currently Amended): A wireless apparatus comprising:

a mixer to convert a frequency of a received signal;

an analog filter to filter the received signal whose frequency has been converted by said mixer;

an analog-to-digital converter to convert the received analog signal filtered by said analog filter into a digital signal;

a digital filter having a band limiting characteristic which is inverse to that of said analog filter with respect to an ideal filter, to filter the digital signal into which the received signal has been converted by said analog-to-digital converter; and

a digital filter control unit to disable the filtering of the digital signal by said digital filter when determining directly from non-linearity of a power level of the received signal that the filtering by said digital filter will increase distortion of the received signal, the determining occurring before the filtering of the digital signal by said digital filter.